

## ENSURING ACCESSIBILITY OF TERRITORIAL COMMUNITY INFRASTRUCTURE FOR LOW-MOBILITY POPULATION GROUPS

**Oleksandra Kovtunenکو**

Ph.D., Taras Shevchenko National University of Kyiv, Ukraine  
e-mail: sandrinaseimos@gmail.com, orcid.org/0000-0001-9334-5937

### Summary

The article provides examples of public projects to ensure the availability of infrastructure for low-mobility population groups, the territorial community of the city of Cherkasy. The creation of children's rooms, the proposed playground for children with disabilities, as well as the creation of barrier-free infrastructure for everyone without exception. Project solutions and proposals, for example from other cities of Ukraine, regarding improving the accessibility of the city's infrastructure for the less mobile population groups have been analyzed and presented. The theoretical provisions, improved approaches and obtained results developed in the project proposal can become a project basis during the formation of policies at various levels and the implementation of appropriate measures to ensure the accessibility of the infrastructure of the territorial community for the less mobile population groups, to activate the public at the level of territorial communities. We hope that the project proposals will be accepted and considered by territorial communities, namely the city of Cherkasy.

**Key words:** public administration, local self-government, project approach, accessibility, population groups with low mobility, infrastructure.

DOI <https://doi.org/10.23856/6521>

### 1. Introduction

The policy of public authorities at the level of the territorial community should be aimed at meeting the needs of all residents and guests of the city without any oppression and humiliation through responsible treatment and maximum consideration of their interests. The accessibility of infrastructure and the creation of a barrier-free environment are important indicators of sustainable development, so this topic has become the subject of research by many scientists and practitioners around the world. The theoretical propositions, improved approaches and obtained results developed in the project proposal can become the basis for the formation of policies at various levels and the implementation of appropriate measures to ensure the accessibility of the infrastructure of the territorial community for people with reduced mobility, for the activation of the public at the level of territorial communities. Conclusions and recommendations will be of practical importance regarding the formation of mechanisms for providing barrier-free infrastructure of the territorial community.

In accordance with the provisions of Article 3 of the Constitution of Ukraine – Man, his life and health, inviolability and security are recognized as the highest social value in Ukraine. Human rights and freedoms and their guarantees determine the content and direction of state activity. The state is responsible to the people for its activities. Affirmation and provision of human rights and freedoms is the main duty of the state (*Konstytutsiia Ukrainy*). A benevolent attitude towards people, regardless of status, age, physical disability, etc., determines the level

of civility of society. That is why the issue of creating an accessible environment for low-mobility population groups is one of the main priorities of the state policy of most countries today.

## 2. The Revolution in the development of information technologies

There are many projects related to the creation of barrier-free infrastructure for people with reduced mobility.

On the initiative of First Lady Olena Zelenska, the project "Rehabilitation of war injuries in Ukraine" was created.

The full-scale Russian invasion made the question of rehabilitation even more relevant. It is important for military personnel and civilians who have been traumatized by war, or whose chronic illnesses have worsened, to be able to recover and become active members of society again.

This project makes recommendations regarding rehabilitation in Ukraine, namely:

- The rehabilitation process must be fully documented in the electronic health care system. This will make it possible to store all information about a person and certificates of rehabilitation in one system, monitor the progress and quality of rehabilitation assistance, automate data exchange between rehabilitation specialists;

- For patients, rehabilitation should be active, not passive. That is, an approach based on the active participation of a person in the process of his recovery and rehabilitation should be used. It is active rehabilitation that demonstrates the greatest effectiveness in restoring functionality;

- A multidisciplinary rehabilitation team should work with the patient, which may include a psychologist, prosthetist, physical therapist and other specialists;

- Rehabilitation assistance should be available in every community, so that patients can continue rehabilitation close to their homes;

- After receiving rehabilitation assistance, it is important for a person to be able to restore or compensate for lost functionality and become an active member of society again;

- Rehabilitation specialists should use only those methods, the effectiveness of which is scientifically proven.

This project is implemented by: the Ministry of Health of Ukraine, the National Health Service of Ukraine, the Ministry of Social Policy of Ukraine, the Office of the President of Ukraine (*Proiekt "Reabilitatsiia travm viiny"*).

The "Protez Hub" limb prosthesis project in Ukraine. The Protez Hub team is people who work on the development of the field of prosthetics and orthotics of Ukraine and the implementation of systemic changes in order to improve the quality of services in all areas.

This project deals with:

1. Educational opportunities for specialists in limb prosthetics or related rehabilitation online and live.

2. Providing consultations and cooperation with non-profit organizations and foundations (foreign and Ukrainian) that want to support limb prosthetics or related rehabilitation in Ukraine.

3. Organization of networking of Ukrainian specialists among themselves and with foreign colleagues online and live.

4. Cooperation with state institutions of various levels: consulting and support for the implementation of necessary changes (*Protez Hub*).

"Barrier-free railway" project. The main goal of the project, within the scope of which the reconstruction of the station is being carried out, is to get rid of barriers on the entire path of

guests of the station, and in the future, all stations and railways of the country. So that nothing prevents people from living and traveling freely. The station area of the Kyiv railway station has become accessible, barriers to employment are being removed, passengers representing groups with reduced mobility are accompanied, and a number of other transformations are being implemented.

The project "Rehabilitation of soldiers and people who have lost their sight" was created by the Ministry of Internal Affairs, the purpose of which is to help soldiers who have lost their sight to navigate in space.

Rehabilitation covers dozens of different directions, because every challenge that people face, every violation must have its own answer. From the outside, these classes may resemble a normal walk, but try to walk through the park with your eyes closed so as not to fall and hit a pole. A person with sight can at any moment develop his eyes and assess the whole situation, but when a person loses his sight, all he can do is learn to navigate with the help of other senses. After all, independent movement in the city space is not just a walk, it is an opportunity to work, communicate and simply live fully despite the injuries received.

The project of the educational course "In the beginning a person". 10 course modules have been developed that provide clear, consistent information on how to make a medical institution people-oriented and comfortable for everyone. And the main thing is how to do it today and now, in real life, where hospitals are often faced with a lack of time, clearly defined funding, and the impossibility of global restructuring of the department.

The name of this project is not accidental. "Man first" is generally about the whole philosophy of barrier-freeness, where spaces and services should be created so that people can use them, and not people grit their teeth and heroically overcome obstacles on the way to what they should receive by law (*EdEra*).

The project "Strengthening social protection in Ukraine" was created by the Office of the Council of Europe in Ukraine. The purpose of which is to help vulnerable social groups affected by the war enjoy a higher level of social rights and social protection (*Council of Europe*).

The project "Time to act, Unstoppable". It aims to promote the creation and arrangement of sports centers adapted for the residents of communities, in particular persons with disabilities, including persons with disabilities as a result of war, in which they can engage in physical culture, communicate with like-minded people and receive professional support from qualified trainers, stimulating them reintegration into the social life of the community.

Within this project, 15 communities were identified, which will create sports spaces for adaptive sports under the conditions of co-financing by the Ministry of Youth and Sports of Ukraine and other business partners and local councils.

And each such club is an invaluable opportunity to help defenders who have been injured to adapt to a peaceful life.

The project "Time to act, Unstoppable" is implemented by the Charity Fund "MHP – Communities" together with the state institution "All-Ukrainian Center for Physical Health of the Population "Sports for All" within the framework of the social project of the President of Ukraine "Active Parks" with the support of the Ministry of Youth and Sports of Ukraine. The project is implemented within the framework of the National Strategy for the Creation of a Barrier-Free Space in Ukraine, which is being implemented at the initiative of the First Lady of Ukraine, Olena Zelenska (*Departament finansiv*).

Social project for people with disabilities. The organization Available.UA is developing a new social project to support people affected by the war. The project aims to motivate people who have been disabled as a result of the war to return to active social life, provide them with

psychological support, as well as relevant and clear information that will help them cope with challenges: processing documents, rehabilitation, employment, etc (*Projekt*).

Project seminar "Implementation of barrier-free and accessibility in Kyiv: prospects and challenges for the second half of 2024". The goal is to create an environment in Kyiv where every resident will feel comfortable. Currently, Ukrainian society is moving away from the fact that barrier-freeness is only about the absence of physical obstacles in the form of ramps and elevators. It is a much broader concept that applies to everyone.

The seminar was attended by representatives of the Kyiv city state administration, district state administrations in the city of Kyiv, as well as expert and public circles. They discussed the areas of health care, social protection and veteran policy, transport and housing and communal infrastructure, development of green areas and digital accessibility.

The Kyiv City State Administration initiated the project seminar. The co-organizers of the event were the public union "League of the Strong" and the public organization "City Development Center".

Within the framework of the project seminar, the participants discussed the implementation of the Action Plan for 2023-2024 for the implementation of the National Strategy for the Creation of a Barrier-Free Space in Ukraine for the period until 2030 in the city of Kyiv.

In addition, the seminar program provides that the departments of the Kyiv city state administration will analyze cases and develop joint proposals for effective work to ensure barrier-free accessibility for the second half of 2024 (*Departamenty KMDA*).

The project "Improving the system of providing rehabilitation aids". Developed by the Ministry of Social Policy. The goal of the project is to improve the system and eliminate problems in order to provide the necessary means of rehabilitation in a timely manner.

This project solves such problems as the lack of highly qualified prosthetists/orthetists; lack of an algorithm for selecting rehabilitation aids (*Proekt Minsotspolityky*).

The project to integrate the topic of barrier-freeness into the curriculum of the Kharkiv School of Architecture has been launched. It is implemented for the comprehensive understanding of barrier-free, accessibility and universal design among male and female students.

The reconstruction project of the capital cinema "Zhovten" creates the conditions for it to become fully accessible to the audience.

With the participation of representatives of ministries, civil society, and the "Business Without Barriers" community, a dialogue was held within the framework of the project regarding the adaptation of workplaces for people with disabilities, retraining, support, and integration of combatants into peaceful life and the country's economy.

Together with Ukrzaliznytsia, a pilot project on workplace adaptation has been launched (*Ukrinform*).

### **3. Implemented projects for low-mobility population groups in Ukraine**

Ensuring unimpeded access, the possibility of free movement within all objects of the physical environment is an essential factor in overcoming the hopelessness and isolation of less mobile population groups, the infrastructure of the city of Cherkasy, in particular the arrangement of play areas for children with disabilities, as well as the arrangement of public space with accessible objects for each population category.

Also in the territorial community of the city of Cherkasy, we created projects to improve the accessibility of the city's infrastructure.

In 2020, we developed the project "Creation of a playground for children with disabilities", which took part in the "Public Budget of the City of Cherkasy" target program, and became the winner in the "Small Public Projects" category. Its implementation was expected in 2021–2022, in accordance with the measures of the specified program, in connection with the full-scale invasion of Russia, the implementation was postponed (*Hromadskyi biudzhet*).

The goal of the project is that children with disabilities should be able to play, have fun and communicate with their friends. For him, such an opportunity is very important, because playing and communicating with friends is a necessary and inalienable right of every child. And healthy children get irreplaceable life and spiritual experience through such communication. People with physical limitations give way only when they are faced with an inaccessible environment.

Our task should in no way be to divide children into groups, but, on the contrary, to unite them and play together. Children with disabilities should feel equal to everyone and should not be discriminated against. Universal playgrounds should be installed in all parks and squares. We are obliged to create the proper infrastructure for games and recreation for everyone without exception. Without discrimination, society will be healthy. It is necessary to create the same conditions for all children (*Kovtunenکو, 2023:76-77*).

According to this project, a certificate of implementation was issued by the Executive Committee of the Cherkasy City Council on March 24, 2021. No. 2321-2.

In 2020, in the city of Kyiv, on the territory of the botanical garden named after O. Fomina hosted the First National Award for Landscape Architecture and Garden Design, where we created the project "Step by Step". This project was awarded the laureate of the 2nd degree.

The goal of the project is to create a barrier-free, accessible, safe environment. The value of a playground will be that all children can play together, without any obstacles.

The project envisages a modern playground with special play elements for children with disabilities. We provide a barrier-free, accessible and safe environment for children with disabilities. The construction of the playground is designed in such a way that children have free and unlimited access to all elements of the game. The playground has wide ramps and handrails that allow children in wheelchairs to enter and exit safely.

A dry pool with soft balls has been designed, which is an important part of a child's development. Games in specially equipped playpens have a beneficial effect on physical training, psycho-emotional state, and general development of children. Soft balls act as a massage element, stimulating blood circulation and metabolism, the development of fine motor skills of the fingers. Regular classes contribute to the improvement of the work of the nervous system and respiratory organs. In addition, the musculoskeletal system is strengthened and the work of the heart is stimulated. But the main value of playgrounds is that all children can play together, without any obstacles.

A new surface is also installed, which is primarily safe, therefore a rubber surface is offered, which helps to avoid injuries during active movements. To familiarize yourself with the plants, I offer a special design of raised mini flower beds. With the help of which children in wheelchairs will be able to take care of plants, this has a beneficial effect on the physical and psychological state of the child. Perennial plants are used in the project. Among perennial plants there are plants that stimulate consciousness and feelings, improve cerebral blood circulation, increase analytical abilities and insight, facilitate inner vision and meditation. These representatives include: basil, sage. There are also plants that have a calming effect on the mind and reduce pain. Such plants are also favorable for calming nervous excitement and anxiety. These representatives include: valerian (*Moshenska, 2020:27*).

We developed a project for the adjacent territory of Cherkasy Gymnasium No. 31 of the Cherkasy City Council of the Cherkasy Region, with the aim of ensuring the accessibility of the premises and other infrastructure of the general secondary education institution for groups of the population with reduced mobility.

According to this project, a certificate of implementation by the Cherkasy Gymnasium No. 31 of the Cherkasy City Council of the Cherkasy Region was issued on August 17, 2022. No. 01-06/227.

The usual life of Ukrainians changed dramatically on February 24, when Russia launched a large-scale invasion of Ukraine. The events that took place in the city of Mariupol on "Azovstal" prompted us to create a memorial complex "Free and unconquered" to the Azov soldiers who died for the independence and integrity of the Ukrainian state. Today, the people of Azov have become a symbol of the indomitability of Mariupol, which heroically held the defense on "Azovstal". This memorial complex consists of protective warriors, a warrior with wings holding a sniper rifle symbolizes a fallen warrior who still continues to protect our defenders. A warrior who is squatting and holding a sniper rifle symbolizes our defenders who keep the defense of our cities. The symbol of Azov should be depicted on the shield. The pedestal is designed with the "Azovstal" emblem.

In this project, a flower bed made of red poppies is proposed as a symbol of memory of the war victims. I also propose to equip the territory where the memorial complex will be installed with benches for groups of the population with reduced mobility. Special orthopedic structures differ from ordinary benches in that they are leaned against, and not sat down. It is difficult for the elderly, pregnant women, and people with musculoskeletal disorders to cover long distances without the opportunity to rest. The special shape of the bench makes it possible to take a break, relieve stress from muscles and joints. They differ in their height – it is higher than that of ordinary ones. Thus, the bench is adapted to the height of a person, so that it is more convenient to lean or lean against it (*Kovtunenکو, 2023:90-94*).

This project has been submitted to the office of the President, and copyright has also been obtained.

We submitted a project proposal for the rehabilitation garden "In harmony with nature", regarding the need to create these gardens. The World Program of Sustainable Development, in terms of measures for the organization of a "barrier-free environment" for people with disabilities, declares the need to create a real barrier-free space for people with disabilities and other groups with limited mobility and is one of the priority requirements in connection with Ukraine's ratification of the Convention UN on the rights of people with disabilities and the Association Agreement with the EU. For modern Ukraine, the issue of creating barrier-free spaces is one of the most urgent issues of the present and the future, due to the large number of injured people as a result of the military aggression of the terrorist country. The creation of rehabilitation gardens (at hospitals, hospitals, rehabilitation centers, veterans associations) is a scientifically proven and actually proven practice in the world. In Ukraine, there are also certain regulations, for example, the creation of parks (gardens) is a mandatory component of hospitals. According to the current norms of Ukraine, green spaces on the territory of hospitals should occupy at least 60% of the entire area and average 200 m<sup>2</sup> per patient. Rehabilitation measures in specialized institutions are supported by the therapeutic effects of the garden, such as: sounds, smells, touches, care and nurturing, development and growth, dynamics of changes. Gardens as such, including rehabilitative gardens, reduce the level of stress, anxiety and symptoms of post-traumatic stress disorder, promote relaxation, and are an element of physical activity (both in the case of involvement in garden care and when walking around the territory).

When creating a garden, the purpose of which is adaptation, pacification, return to peaceful life, acceptance of certain health defects acquired during military operations, we need to be clearly aware of some special requirements for rehabilitation gardens and their specific characteristics. Let's consider some of them. Combatants usually like a confined space. In the cafe, they choose a place with their back to the wall to see the exit, in the room – a chair that is located in the depth, also with a view of the entrance and exit from the room. These are the consequences of a subconscious search for security. In rehabilitation gardens, these points should be taken into account – to create green rooms that have "walls" around the perimeter, gazebos with solid walls, not transparent ones. In this way, certain comfort zones can be created. In the rehabilitation garden, it is appropriate to lay down spaces for communication (including group), meetings, walks (independently, with family or friends), places of rest and contemplation with the obligatory consideration of inclusiveness. We developed an open class project.

Modern, innovative space – new conditions, new opportunities for education. Creation on the territory of the Antipiv educational and educational complex "General education school of I-III degrees – Preschool educational institution" class under the open sky, a motivating space for learning, creative educational and social projects, conducting trainings, master classes, workshops, leisure time during the break and in the group of extended day. The opening of the site will facilitate the work of participants in the educational process in informal conditions, increase interest in learning, and develop the ability to properly organize one's free time.

The project involves the installation of a hinged structure like a metal frame gazebo with a polycarbonate roof and closed two side walls. Advantages of polycarbonate: strength, lightness, plasticity, transparency, resistance to low temperatures. It will provide a modern aesthetic look, will allow unhindered observation of objects in adverse weather conditions, and safe movement in the classroom.

Transformer benches of the Ukrainian manufacturer "LATEM" – a structure made of natural material can be used as a large bench or as a table with two smaller seats for creative work in groups.

The Buromax double-sided flip chart on wheels has two surfaces for writing with markers and chalk and attaching information with magnets. It can also be used as a screen for a multimedia projector.

The teacher's desk-standing lectern for the classroom, made of steel and wood, has a high-quality powder coating that ensures immediate readiness for use; increased fire safety; environmental friendliness; safety for humans with tactile contact; high degree of purity; high reference quality of the surface of the part; impact resistance of the coating with anti-corrosion and electrical insulating properties.

Also, this project is available for people with reduced mobility, namely ergonomic tables designed according to the State Building Regulations are offered. Their height allows a person to approach a wheelchair.

According to this project, a certificate was issued on the implementation of the Antipiv educational and educational complex "General education school of grades I-III – Preschool educational institution" by the Novodmytriv village council of Zolotoni district of Cherkasy region, October 12, 2023. No. 121.

#### 4. Conclusions

It was established that the application of the program-target approach ensures the unity of actions aimed at coordinating the tasks of different levels of public administration and time

periods of different durations, the complexity and continuity of socio-economic processes when achieving the set goals of social development based on the use of available resources and taking into account the interests of all sub-objects (*Shatirishvili, 2018:115-116*).

## References

1. *Konstytutsiia Ukrainy – rozdil I. Ofitsiine internet-predstavnytstvo Prezydenta Ukrainy*. Retrieved from: <https://www.president.gov.ua/ua/documents/constitution/konstituciya-ukrayini-rozdil-i#:~:text=Stattia%203.,pered%20liudynoiu%20za%20svoiu%20dialnist>. [in Ukrainian]
2. *Proiekt “Reabilitatsiia travm viiny”. Reabilitatsiia travm viiny*. Retrieved from: <https://rehabilitation.org.ua/golovna/hto-my/>. [in Ukrainian]
3. *Protez Hub – Stalyi rozvytok protezuvannia kintsivok v Ukraini | Protez Hub*. Retrieved from: <https://protezhub.com>. [in Ukrainian]
4. *Kursy z inkliuzyvnosti | EdEra*. Retrieved from: <https://ed-era.com/course/inclusivity/>. [in Ukrainian]
5. *Council of Europe Office in Ukraine – Council of Europe Office in Ukraine*. Retrieved from: [https://www.coe.int/en/web/kyiv?fbclid=IwZXh0bgNhZW0CMTAAR2V7UHWRw4AaPQvsCO11xjDFNJvAR-BIIWTDVK2rXqZQMZgHX1uMvttwc\\_aem\\_czGhHd7tY8chVC4h1NWEpw](https://www.coe.int/en/web/kyiv?fbclid=IwZXh0bgNhZW0CMTAAR2V7UHWRw4AaPQvsCO11xjDFNJvAR-BIIWTDVK2rXqZQMZgHX1uMvttwc_aem_czGhHd7tY8chVC4h1NWEpw). [in Ukrainian]
6. *ChAS DIIaTY, NESTRYMNI! | Departament finansiv, ekonomiky ta investytsii Sumskoi miskoi rady*. Retrieved from: <https://finance.smr.gov.ua/public/posts/novivi/chas-diyati-nestrymni#:~:text=«Chas%20diiaty,%20Nestrymni»%20–,mistechku%20adaptivnoho%20klubu%20«Nestrymni»>. [in Ukrainian]
7. *Novyi sotsialnyi proiekt dopomahatyme liudiam iz invalidnistiu. Pershe media pro blahodiinist*. Retrieved from: <https://media.zagoriy.foundation/novyny-blagodijnosti/v-ukrayini-rozroblyayut-novyyj-soczialnyj-projekt-shho-dopomagatyme-lyudyam-iz-invalidnistyu/>. [in Ukrainian]
8. *Departamenti KMDA predstavlyli projekty implementatsii elementiv bezbariernosti v miski tsilovi prohramy na 2024 rik. Ofitsiyni portal Kyieva*. Retrieved from: [https://kyivcity.gov.ua/news/departamenti\\_kmda\\_predstavili\\_proyekti\\_implementatsii\\_elementiv\\_bezbariernosti\\_v\\_miski\\_tsilovi\\_programi\\_na\\_2024\\_rik/](https://kyivcity.gov.ua/news/departamenti_kmda_predstavili_proyekti_implementatsii_elementiv_bezbariernosti_v_miski_tsilovi_programi_na_2024_rik/). [in Ukrainian]
9. *Proekt Minsotspolityky na zasidanni Rady bezbariernosti. Uriadovi Kurier*. Retrieved from: <https://ukurier.gov.ua/uk/news/oksana-zholnovich-prezentovala-flagmanskij-proekt/>. [in Ukrainian]
10. *Ukrinform. Zastosunok look to speak vid google teper dostupnyi i v ukraini*. Retrieved from: <https://www.ukrinform.ua/rubric-technology/3608586-zastosunok-look-to-speak-vid-google-teper-dostupnij-i-v-ukraini.html>. [in Ukrainian]
11. *Hromadskiy biudzhet 2020 rik. Cherkasy Ofitsiyniy portal miskoi rady, miskoho holovy, vykonavchoho komitetu*. Retrieved from: <http://chmr.gov.ua/ua/files.php?s=34&s1=468&s2=703>. [in Ukrainian]
12. *Kovtunen O. (2023) Vzaiemodiia hromadskosti ta orhaniv publichnoi vlady shchodo zabezpechennia dostupnosti infrastruktury terytorialnoi hromady dlia malomobilnykh hrup*



*naseleunia. Publichne upravlinnia i administruvannia v Ukraini. 36. pp. 90–94. Retrieved from: <http://www.pag-journal.iei.od.ua/36-2023>. [in Ukrainian]*

13. *Moshenska O. V. (2020) Krok za krokom. Landshaft i arkhitektura. 5. pp. 27. [in Ukrainian]*

14. *Shatirishvili D. A. (2018) Prohramno-tsilovyi pidkhid pry pryiniatti upravlinskykh rishen (na prykladi funktsionuvannia miskoho nazemnoho elektrotransportu. Investytsii: praktyka ta dosvid. 24. pp. 115–118. [in Ukrainian]*